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09/894,524	06/27/2001	Martin Boliek	074451.P134	5999

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EXAMINER
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TRUONG, LAN DAI T

ART UNIT	PAPER NUMBER
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2152

MAIL DATE	DELIVERY MODE
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06/30/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/894,524	<b>Applicant(s)</b> BOLIEK ET AL.	
	<b>Examiner</b> LAN-DAI Thi TRUONG	<b>Art Unit</b> 2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This action is response to communications: application, filed on 03/27/2001; amendment filed 03/19/2008. Claims 1, 3-28 are pending; claims 1, 3, 14 are amended; claims 2, 29-38 are canceled.

### **Response to Arguments**

2. The applicant's arguments filed on 03/19/2008 have fully considered. In response to applicant's arguments with respect to the cited paragraphs (Long et al. U.S. 2002/0057446: [0061]-[0064]) do not disclose feature of "adjusting values of the at least markers to reassemble the new codestream to be compliant with the JPEG2000 standard, including adjusting the TLM and PLM markers to be compatible with corresponding markers of the JPEG 2000 standard, so that an ordinary JPEG2000 decoder can be invoked to decode the new codestream if the portions of the compressed codestream received as a result of the request are not JPEG2000 compliant." The office apologizes for typographical errors in cited paragraphs. The correct citations for the limitations above should be ([0561]-[0564] instead of [0061]-[0064]).

3. In response to applicant's arguments with respect to the objected Ids indicated in the previous Office Action (mailed on 12/19/2007) have been submitted on 04/20/2004 are not persuasive. The Office respectfully reminds applicant that no IDs were submitted on 04/20/2004.

### **IDS Objections**

4. The listing of references in the specification (page 2, [0004]; page3, [0006]; page 4, [0006]) is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all

patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

### **Claim rejections-35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1, 3-23, 28 are rejected under 35 U.S.C 103(a) as being un-patentable over Deshpande et al. (U.S. 2002/0087728) in view of Larsson et al. (U.S. 2003/0110299) and further in view of Long et al. (U.S. 2002/0057446).**

#### **Regarding claim 1:**

Deshpande discloses the invention substantially as claimed, including a client computer system, which can be implemented in a computer hardware or software code for processing codestreams, the system comprising comprising:

a memory having an application and a data structure stored therein, wherein the data structure identifies positions of the compressed codestream on a server and identifies data of the compressed codestream already buffered at the client: (Deshpande discloses the data structure of application JPEG2000, in Deshpande's system, the locations/segments of codestream in the

memory are identified; since the JPEG2000 codestream is well structured, it is possible to retrieve some portions of the codestream from the memory: figure 1, [0005]-[0008], [0042]).

a processor coupled to the memory to execute to application to generate a request for portions of the compressed codestream based on indications of which portions of the codestream are already stored in the memory as indicated by the data structure: (in Deshpande's JPEG2000 environment, client is allowed to make intelligent HTTP requests to obtain required portions of image file bit streams (CUs) of the codestream from the servers: [0017]; [0003]).

size of the requested portions is determined based on at least two of resolution, layer, component, and precinct of an image specified by a user of the client: (Deshpande discloses identifying the locations/segments of the codestream based upon those conditions e.g. precinct, resolutions, layer, code-block, component: [0008]-[0009]).

size of the request option is derived from the data structure of the client corresponding to the client specified at least two of resolution, layer, component, and precinct of the image: (in Deshpande's JPEG2000, parameters included in codestream markers used to indicate range of compatible image resolution for communications between the server and the client: [0008]-[0009]; [0028]).

wherein the codestream markers include a TLM marker and PLM marker that provide a byte map to each of the packets, each of packets being distinguishable by tile, component, resolution, and layer: (in Deshpande's JPEG2000 system; the image data is divided into plurality of coded-blocks wherein each of them includes a marker (e.g. PLM/ or TLM) in the header to provide information of coding style default i.e. decompression levels, progression order, number

of layers, code-block size, wavelet filter used, packet partition size: [0006]-[0007]; [0009]; figure 1).

prior to decoding, integrates previously obtained options of the compressed codestream with portions of the compressed codestream received as a result of the request to create a new codestream by putting packets in the order the packets appeared in compressed codestream: (it would have been obvious in the art to know that each partition compressed packet/ portion is indexed for transmitting over the network; the index then used to integrate received transmitting compressed packets/portions back into the previous orders prior decoding process: [0006]-[0007]; [0009]; figure 1).

However, Deshpande does not explicitly disclose client-server environment.

In analogous art, Larsson discloses a JPEG2000 supports for client-server communications; therefrom, stored image on the server is partitioned into plurality of decodable units, and the client is capable to request any interesting image decodable units those the client decides more important (known as ROI). Then the client requests for the desired decodable units with chronological number indicating the number of bytes acceptable for the client's system. The client also is capable to create/ reassemble a new codestream (known as previous stored image information). Furthermore, the client is able to select the coefficient need for the server to decide what CU's are need for the server, see (abstract; [0005]; [0007]; [0050]-[0059]; figure 1-6).

updating codestream markers to reflect that the previously obtained portions of the compressed codestream and the portions of the compressed codestream received as result of the request are part of the new codestream: (in Larsson's JPEG2000 system, the client-server interactions refer to the original/previous transcoded image according the decision by the client.

The interactions used to TAGS or re-sync marks in the bit stream, see [0103], i.e. the update of codestream markers in the bit stream to reflect the previous transcode image: [0098]-[0105]; figure 4-7).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Larsson's ideas of using client-side to control the scalability of JPEG2000 system into Deshpande's system in order to increase flexibilities/ efficiencies for data compress system e.g. reducing the amount of processing and encoding in a server by requests an ROI or a part of image by client, see (Larsson: [0005]-[0006]).

However, Deshpande-Larsson does not explicitly disclose method of adjusting values of the at least markers to reassemble the new codestream to be compliant with the JPEG2000 standard, including adjusting the TLM and PLM markers to be compatible with corresponding markers of the JPEG 2000 standard, so that an ordinary JPEG2000 decoder can be invoked to decode the new codestream if the portions of the compressed codestream received as a result of the request are not JPEG2000 compliant.

In comparable art, Long discloses technique of adjusting bits limiting for byte-aligned marker into JPEG standard for decoding cycle, see ([0561]-[0564]).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Long's ideas of adjusting padding bits to byte boundary of JPEG standard decoder into Deshpande-Larsson's system in order to employ high-standard technique of long's into Deshpande-Larsson's system for saving resources and development time, and further for increasing efficiencies for message coding network, see (Long: column 2, lines 53-55).

**Regarding claim 3:**

In addition to rejection in claim 1, Deshpande-Larsson- Long further discloses a client coupled to the server via a network environment, wherein the client includes a memory having an application and a data structure stored therein, wherein the data structure identifies positions of the compressed codestream on the server and identifies data of the compressed codestream already buffered at the client: (Larsson discloses a JPEG2000 supports for client-server communications; therefrom, stored image on the server is partitioned into plurality of decodable units, and the client is capable to request any interesting image decodable units those the client decides more important (known as ROI): abstract; [0005]; [0007]; [0050]-[0059]; [0049]-10054D, figure 1-6).

wherein the client request bytes of the compressed codestream from the server that are not already stored in the memory and generates a new codestream from the bytes of the compressed codestream requested from the server and any portion of the compressed codestream previously stored in the memory necessary to create the image data, the new codestream generated by putting packets in the order the packets appeared in the compressed codestream: (the client requests for the desired decodable units with chronological number indicating the number of bytes acceptable for the client's system. The client also is capable to create/ reassemble a new codestream (known as previous stored image information). The client is able to select the coefficient need for the server to decide what CU's are need for the server. It would have been obvious in the art to know that each partition compressed packet/ portion is indexed for transmitting over the network; the index then used to integrate received transmitting



compressed packets/portions back into the previous orders prior decoding process: (Larsson, abstract; [0005]; [0007]; [0050]-[0059]; [0049]-10054D, figure 1-6).

**Regarding claim 14:**

In addition to rejection in claim 1, Deshpande-Larsson- Long further discloses image characteristics: (in Deshpande's JPEG2000 system; the image data is divided into plurality of coded-blocks wherein each of them includes a marker in the header to provide information of "coding style default i.e. decompression levels, progression order, number of layers, code-block size, wavelet filter used, packet partition size" those share functionality with "image characteristics" as claimed: [0006]-[0007]; [0009]; figure 1).

displaying an image corresponding to the decoded new codestream: (Deshpande: [0038]).

**Regarding claim 22:**

This claim is rejected under rationale of claim 14.

**Regarding claim 4:**

In addition to rejection in claim 3, Deshpande-Larsson- Long further discloses wherein the portion of the compressed codestream are selected from a group of packets, tile part, and coded data segments from a codebook (Deshpande, [0006], [0030]).

**Regarding claim 5:**

In addition to rejection in claim 3, Deshpande-Larsson- Long further discloses when executing the application, the client determines image characteristics that a user requests (Larsson, Abstract), selects data of a compressed codestream that corresponds to the image characteristics, determines data of a compressed codestream that corresponds to the image characteristics that is not already buffered at the client, issues requests to the server to obtain the data of a compressed codestream that corresponds to the image characteristics that is not already buffered at the client,

integrates data received from the server with any previously buffered data of the compressed codestream that corresponds to the image characteristics, decodes the data of the compressed codestream that corresponds to the image characteristics, and displays an image corresponding to the decoded compressed codestream. (Larsson, [0002], [0008], [0021], [0062]).

**Regarding claim 6:**

In addition to rejection in claim 3, Deshpande-Larsson- Long further discloses wherein the server serves byte requests: (Larsson, [0032], 1.1-3, [0060]).

**Regarding claim 7:**

In addition to rejection in claim 3, Deshpande-Larsson- Long further discloses wherein the client further comprises a software decoder, and the client creates the compressed codestream for the software decoder by integrating bytes requested with previously obtained bytes: (Larsson, [0021], 1.1-4, [0062], 1.1-13).

**Regarding claim 8:**

In addition to rejection in claim 3, Deshpande-Larsson- Long further discloses wherein the client determines the location and length of each packet (Larsson, [0062], 1.7-12).

**Regarding claim 9:**

In addition to rejection in claim 8, Deshpande-Larsson- Long further discloses wherein the client requests a header length of a compressed file from the server that includes one or more file format boxes and a main header of the codestream box from which the client determines the location and length 'of each packet (Larsson, [0042], 1. 1-3, [0052], 1.1-5).

**Regarding claims 10-11:**

In addition to rejection in claim 9, Deshpande-Larsson- Long further discloses two marker segments indicative of a map to every packet, the two marker segments comprise the TLM nad PLM marker segments (Deshpande, [0007], 1.14-17).

**Regarding claim 12:**

This claim is rejected under rationale of claim 6.

**Regarding claim 13:**

In addition to rejection in claim 3, Deshpande-Larsson- Long further discloses wherein the compressed codestream comprises a JPEG 2000 codestream (Larsson, [0059], 1.1-12).

**Regarding claims 15-18:**

Those claims are rejected under rationale of claims 5-9.

**Regarding claims 19-20:**

Those claims are rejected under rationale of claims 10-11.

**Regarding claim 21:**

This claim is rejected under rationale of claim 13.

**Regarding claims 23-28:**

Those claims are rejected under rationale of claims 10-13, 16-18.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### **Conclusions**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lan-Dai Thi Truong whose telephone number is 571-272-7959. The examiner can normally be reached on Monday- Friday from 8:30am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob A. Jaroenchonwanit can be reached on 571-272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Bunjob Jaroenchonwanit/

Supervisory Patent Examiner, Art Unit 2152